

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An ac generator for a vehicle, comprising:
  - a housing including a drive frame, a rear frame and a rear cover;
  - a rotor, supported by said housing, for providing a magnetic field;
  - a cooling fan fixed to said rotor for taking cooling air from outside of the rear cover;
  - a stator, supported by said housing and disposed around said rotor, said stator having a stator core in which a plurality of phase-windings is mounted to generate multi-phase electromotive ~~force~~ forces when the magnetic field is supplied; and
  - a multi-phase full-wave rectifying unit disposed in the rear cover and formed by a bridge circuit which includes a plurality of input terminals respectively connected to the plurality of phase-windings, a positive output terminal, a negative output terminal, positive electrode side rectifying elements having one ends respectively connected to the input terminals and the other ends connected to the positive output terminal, and negative electrode side rectifying elements respectively connected to the plurality of phase-windings,  
~~wherein the rectifying unit comprises~~ having one ends respectively connected to the input terminals and the other ends connected to the negative output terminal, a semicircular positive electrode side heat sink to which the positive electrode side rectifying elements are fixed and a semicircular negative electrode side heat sink to which the negative electrode side rectifying elements are ~~respectively~~ fixed, said positive electrode side heat sink and said negative electrode side heat sink being respectively disposed in two planes that are perpendicular to a rotation axis of said rotor,

wherein said negative electrode side heat sink comprises a pair of separate semicircular plates that have a larger outside diameter than the positive electrode side heat sink to utilize cooling air taken by said cooling fan from outside of the rear cover, and

wherein one of the negative electrode side rectifying elements ~~connected to at least a portion of the plurality of phase windings~~ is constituted of parallelly connected two elements that are respectively fixed to the semicircular ~~members~~ plates to equally divide current flowing ~~therethrough~~ through one of the input terminals.

2. (Original) The ac generator for a vehicle according to claim 1, wherein the elements constituting the positive electrode side rectifying elements and the negative electrode side rectifying elements are zener diodes.

3. (Original) The ac generator for a vehicle according to claim 1, wherein one of said parallelly connected two elements is a zener diode and the other is a normal diode.

4.-8. (Canceled)

9. (Previously Presented) The ac generator for a vehicle according to claim 1, wherein the negative electrode side heat sink is disposed deeper in the rear cover than the positive electrode side heat sink.

10. (New) An ac generator for a vehicle, comprising:  
a housing;  
a rotor for providing a magnetic field;  
a stator, having a stator core supported by said housing and a plurality of phase-windings; and  
a multi-phase full-wave rectifying unit including a bridge circuit of positive electrode side rectifying elements and a negative electrode side rectifying elements, a semicircular positive electrode side heat sink to which the positive electrode side rectifying elements are fixed at one ends thereof, a semicircular negative electrode side heat sink to which

the negative electrode side rectifying elements are fixed at one ends thereof, a plurality of input terminals connected to the positive electrode side rectifying elements at the other ends thereof and the negative electrode side rectifying elements at the other ends thereof, a positive output terminal connected to the positive electrode side heat sink, and a negative output terminal connected to the negative electrode side heat sink,

wherein said negative electrode side heat sink comprises a pair of separate semicircular plates that have a larger outside diameter than the positive electrode side heat sink, and

wherein one of the negative electrode side rectifying elements is constituted of parallelly connected two elements each of which has as a smaller capacity than other elements and is fixed to different one of the semicircular plates to equally divide current flowing through one of the input terminals.

11. (New) An ac generator for a vehicle, comprising:

a housing;

a rotor, supported by said housing, for providing a magnetic field;

a stator, having a stator core and a plurality of phase-windings to generate a plurality of phase current when the magnetic field is supplied; and

a multi-phase full-wave rectifying unit including a plurality of series circuits of a positive electrode side rectifying element and a negative electrode side rectifying element, a semicircular positive electrode side heat sink to which the positive electrode side rectifying elements are fixed at one ends of the series circuits and a semicircular negative electrode side heat sink to which the negative electrode side rectifying elements are fixed at the other ends of the series circuits, a plurality of input terminals each of which is connected to one of the plurality of phase-windings and to a junction of the series circuits of the positive electrode side rectifying element and the negative electrode side rectifying element, a positive output terminal

connected to the positive electrode side heat sink, a negative output terminal connected to the negative electrode side heat sink,

wherein said negative electrode side heat sink comprises a pair of separate semicircular plates that have a larger outside diameter than the positive electrode side heat sink, and

wherein one of the negative electrode side rectifying elements is constituted of parallelly connected two elements one of which is a zener diode fixed to one of the semicircular plates, and the other of the two elements is fixed to the other of the semicircular plates to equally divide one of the phase currents flowing therethrough.